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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/928,884	08/14/2001	Daniel A. Lawlyes	DP-304830	8146

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EXAMINER

LINDINGER, MICHAEL L

ART UNIT	PAPER NUMBER
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2841

DATE MAILED: 08/05/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/928,884

Applicant(s)

LAWLYES ET AL.

Examiner

Michael L. Lindinger

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 8-17 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 8-17 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____. | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 8 and 13-15 are rejected under 35 U.S.C. 102(b) as being unpatentable by Natsume U.S. Patent No. 5,764,487. Natsume teaches an engine controller comprising a main assembly board 28, a main assembly housing 24, 26, and a pre-assembled partitioned circuit assembly having a partitioned circuit element 16 mounted within a partitioned circuit housing 22 and a plurality of connectors 32, said plurality of connectors placing said partitioned circuit element in communication with said main assembly board when said partitioned circuit assembly is inserted into said main assembly housing, wherein said main assembly housing includes at least one main assembly port 20, said at least one said assembly port allowing said partitioned circuit assembly to be inserted into said main assembly board through main assembly housing, wherein the engine controller further comprises at least one communication port 36 (Col. 3, lines 20+; Col. 4, lines 1+; FIG. 1-2).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 9-12 and 16-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Natsume U.S. Patent No. 5,764,487 in view of Denzene U.S. Patent No. 6,219,258 B1. Natsume teaches an partitioned circuit assembly for integration and removal from an engine controller comprising a main assembly board 28, a main assembly housing 24, 26, and a pre-assembled partitioned circuit assembly having a partitioned circuit element 16 mounted within a partitioned circuit housing 22 and a plurality of connectors 32, said plurality of connectors placing said partitioned circuit element in communication with said main assembly board when said partitioned circuit assembly is inserted into said main assembly housing (Col. 3, lines 20+; Col. 4, lines 1+; FIG. 1-2). Natsume does not teach a partitioned circuit assembly further comprising a heat sink element, a passivation material, or a seal element. Denzene teaches pre-assembled circuit assembly comprising a heat sink element (not explicitly numbered, referred to as fins on the inner/outer surfaces Col. 5, lines 25-32), a passivation material 90 positioned within said partitioned circuit housing (Col. 2, lines 27+; Col. 6, lines 46+; Col. 7, lines 1+), a seal element 110 such that said partitioned circuit assembly

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becomes sealed to said main assembly housing after said partitioned circuit assembly is inserted into said main assembly board (Col. 8, lines 23+). Denzene does not teach a pre-assembled partition circuit assembly further including a heat sink attached using thermally conductive material. Electronic devices or components generate heat, which creates interference within the electronic assembly and decreasing the accuracy of the signals and results. It would be obvious to a person skilled in the art to adapt the pre-assembled circuit assembly of the Natsume reference to include a heat sink element, passivation material, and a seal element in order to protect the inner components of the assembly from EMI interference and environmental pollution. It is known to provide a heat sink, heat dissipation device, or cold plate in conjunction with a circuit assembly in order to minimize the dissipation of heat and the subsequent interference problems that accompany the excess heat produced. By providing a heat sink and other sealant elements, the Applicant is merely attempting to remedy a common problem within the electronic industry, and thus not providing an improvement on an existing product, therefore the inclusion of the heat sink does not constitute patentability.

Prior Art

1. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Ito U.S. Patent No. 5,403,193 discloses a small junction box for connecting a wire harness comprising a power receptacle and socket.
- Matsuoka U.S. Patent No. 5,759,050 discloses an electrical connection between an electrical connection box and electronic connector unit.
- Boyd U.S. Patent No. 6,350,949 B1 discloses a sealed power module.
- Koshiba U.S. Patent No. 6,437,986 B1 discloses a fuse relay junction block for use in automobiles.
- Rostoker U.S. Patent No. 5,311,060 discloses a semiconductor device comprising a heat sink, a semiconductor chip, and a passivation layer.
- Pressler U.S. Patent No. 5,550,713 discloses an partitioned EMI shielding assembly for a printed circuit board comprising a printed circuit board, a gasket, and a sealing gasket and fastener.
- Achiriloaie U.S. Patent No. 6,094,350 discloses a partitioned module comprising a printed circuit board, a gasket, and a heat sink.
- Weber U.S. Patent No. 6,317,332 discloses an electronic module comprising a housing piece, multiple external connectors, and a circuit board.

Response to Arguments

1. Applicant's arguments filed June 9, 2003 have been fully considered but they are not persuasive. Regarding Claims 8 and 13-15, in response to applicant's arguments, the recitation "engine controller" has not been given patentable weight because the recitation occurs in the preamble. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951). Applicant also argues that "partition circuit assembly" is not taught by the Prior Art. Claim 8 recites such an element without any functional language. Claim 15 broadly claims a "partitioned circuit element," which does not recite any functionality of the element. For the foregoing reasons, Claims 8 and 13-15 continue to be anticipated by the Natsume references. Accordingly, the Examiner's rejection over the Natsume reference under 35 U.S.C. 102(b) is upheld.

2. Regarding Claims 9-12 and 16-17, in response to applicant's argument that Denzene is nonanalogous art, it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as

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a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this case, the Applicant asserts that the Denzene reference which teaches an outdoor telecommunications box is non-analogous to an engine controller. The Applicant gives no specific environmental conditions that would preclude the Denzene reference from being combined with the Natsume reference in the present case. As was established in prior rejections, heat sinks are utilized throughout the electronics industry to provide cooling to heat producing elements in an electronic apparatus, as well as seals are provided to seal an element or apparatus in protection from outside element interference or damage. To provide multiple heat sinks to multiple elements or to provide a single heat seat for a plurality of elements is a matter of using multiple parts for a greater effect, which has been established in case law to be an obvious step in the art since it has been held that using duplicate parts for a multiplied effect involves only routine skill in the art (*St. Regis Paper Co. vs. Bemis Co.*, Inc. 193 USPQ 8, 11 (7th Cir. 1977)). Providing a seal to an element or apparatus in different locations would have been obvious to a person skilled in the art at the time of the invention since it has been held that rearranging parts of an invention involves only routine skill in the art (*In re Japikse*, 86 USPQ 70). For the foregoing reasons, Claims 9-12 and 16-17 continue to be anticipated by the combination of the Natsume and Denzene references. Accordingly, the Examiner's rejection over the Natsume and Denzene combination under 35 U.S.C. 103(a) is upheld.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael L. Lindinger whose telephone number is (703) 305-0618. The examiner can normally be reached on Monday-Thursday (7:30-6).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Martin can be reached on (703) 308-3121. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 746-7318 for regular communications and (703) 746-7318 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

Michael L. Lindinger
Patent Examiner
Art Unit 2841

MLL
July 30, 2003

A handwritten signature in black ink, appearing to read 'Dl Mh', is positioned above the printed name and title of David Martin.

DAVID MARTIN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800